

Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

FORZA FD60 4-part solid white oak hardwood doorframe – clear lacquer finished



Programme:

The International EPD® System, www.environdec.com

Programme operator:

EPD International AB

EPD registration number:

S-P-11109

Publication date:

2023-12-15

Valid until:

2028-12-11

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



General information

Programme information

| | |
|-------------------|---|
| Programme: | The International EPD® System |
| Address: | EPD International AB Box 210 60 SE-100 31 Stockholm Sweden |
| Website: | www.environdec.com |
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| |
|---|
| Accountabilities for PCR, LCA and independent, third-party verification |
| Product Category Rules (PCR) |
| CEN standard EN 15804 serves as the Core Product Category Rules (PCR) |
| Product Category Rules (PCR): PCR 2019:14 v1.2.5 and C-PCR-007 Version: 2020-04-09 |
| PCR review was conducted by: The committee of IVL Swedish Environmental Research Institute and Secretariat of the International EPD® System |
| Life Cycle Assessment (LCA) |
| LCA accountability: Mark Dowling and Robert Holdway - Giraffe Innovation Ltd |
| Third-party verification |
| Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by individual verifier Third-party verifier: Chris Foster, EuGeos Limited. Approved by: The International EPD® System |
| Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Forza Doors Ltd.
24a / 24c Star Road
Partridge Green
Horsham
West Sussex RH13 8RA

This address is also the manufacturing site.

Website: www.forza-doors.com

Contact: . Tel: 01403 711 126. Email: Info@Forza-doors.com

Description of the organisation:

Forza Doors Ltd is a UK based manufacturer of high-quality bespoke joinery products. We are specialists in the preparation of wood veneers and timber utilised in the production of our doors, frames, panels, fire screens and associated joinery products.

The Forza product range satisfies the demands and standards required by the UK construction interior fit-out industry encompassing the office, education, health, hotel, residential and retail sectors.

We provide a first-class service that recognises project lead times as crucial and where site events compress the completion schedule, we are ready and able to support your fast-track requirements.

All Forza Fire performance products are assured by independent UKAS accredited and internationally recognised providers of third-party certification schemes. These are underpinned with robust and extensive primary and secondary test evidence and under our scheme arrangements we receive regular and ongoing factory process and product audit checks which provide assurance that our products are always supplied as originally tested and fully in accordance with our scheme arrangements. Furthermore, these products are future proofed by our on-going investment in rigorous programmes of performance testing under UK National and European testing standards and relevant certification. Forza maintain active involvement with trade association bodies such as the GAI, FIS & SBD. Technically and professionally we never stand still.

Forza doors and frames are also tested to determine structural performance and achieve the rating of Severe Duty.

The directors, management and staff of Forza Doors remain committed to on-going environmental, social, and sustainability improvements and constantly seek new innovations in our manufacturing processes, training schemes and supply chains that will make a positive difference in these areas. Our policies on these subjects and evidential information of our accreditations can be found on our website www.forza-doors.com or by following the specific link <https://www.forza-doors.com/about-us/our-certification.aspx>

The manufacturing site is accredited to ISO 9001, 14001, 45001. Forza holds IFCC Fire Certificate Number FRTD497, FSC ® Licence Code FSC-C104313

Forza Certifications and Accreditations.



FSC® certified products available on request.



Product information

Product name and identification: FORZA FD60 4-part solid white oak hardwood doorframe – clear lacquer finished.

Product description: The product analysed is a Forza 4 Part solid white oak hardwood doorframe comprising a liner, loose stop, and architraves. It is utilised in combination with door of a thickness of 54mm where FD60 standard is required.

A minimum density of 640kgs/m³ is required for a FD60 timber doorframe. The doorframe analysed here is made with White Oak Timber (Genus - Quercus) hardwood, having a density range ~720 kgs/m³ -770 kgs/m³.

The door frame is fully pre-coated in our factory with a high-quality lacquer ready for installation and is factory mitred and cut over length for trimming on site where floor levels vary. Forza's 4 Part solid white oak hardwood door frame is suitable for and very typically used in the commercial interior construction market, encompassing office, education, health, hotel, residential and retail sectors. The doorframe satisfies the demands and standards required by the UK Interior Fit-Out construction industry. More specifically, Forza Doors Ltd Field of Application report (PAR/10896/01) produced by International Fire Consultants Ltd, certifies Forza FD60 doors in timber frames in supporting constructions of demountable Steel stud & timber stud plasterboard clad partitions, brickwork, block work or concrete walls.

It is reasonable to expect a life span of more than 25 years in normal conditions.

The product documented within this EPD contains no substances in the REACH Candidate list of substances of very high concern.

Door Frame manufacturing process overview:

To minimise material wastage, optimal thickness boards of the required timber species are selected for colour and quality then sawn to the required width.

Sawn timber is planed/moulded on all 4 sides in one pass to the required dimension.

Planed/moulded frame sections are secondary machined on multi-axis CNC machines to form accurate joint conditioning for onsite or factory assembly and routed for hinges, lock and closer.

Machined sections are then fine-sanded prior to final coating finishes being hand-sprayed with suitable lacquer or primer.

Frame components, depending on customer request, are either factory assembled and packed or packed as loose components.

Further technical information can be obtained on Forza Doors website www.forza-doors.com

UN CPC code: 31600: Builders' joinery and carpentry of wood

Geographical scope: United Kingdom

LCA information

Declared unit: The declared unit is a door frame for 1m² of door based upon a solid white oak (Genus - Quercus) hardwood door frame to suit a timber door measuring; height 2040mm x Width 926mm x Thickness 54mm. It has a clear lacquer finish. This includes installation of the door frame on the customer's site.

The size chosen is one of the most commonly purchased sizes in the UK and it is a common size used by other manufacturers across Europe. Data would not be available on the installation of the door frame if the sizes in the EN17213 were reported on.

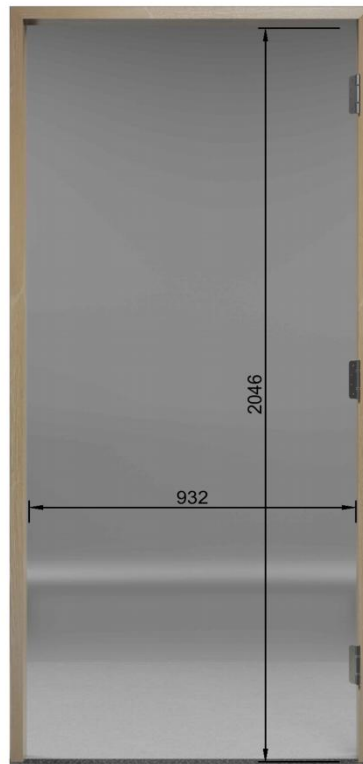


Figure 1: Dimensions of the door frame

Reference service life: Not declared.

Time representativeness: Covers one year from 1st January 2022 to 31st December 2022.

Database(s) and LCA software used: Ecoinvent 3.9.1 and SimaPro 9.5.0.1

Description of system boundaries:

Cradle to gate (A1-A3) with modules A4, A5, C1–C4 and module D (A1–A3 +A4+ A5+ C + D).

This covers all the raw materials and production of the door frame and the following:

- Delivery of the door frame from the factory to the end user installation site (A4) and the actions required for the manufacturers correct prescribed installation method to install into a suitable wall aperture.
- The installers journey to site, the use of electric tools and sundry items required to correctly hang the door frame. (A5)
- Recovery of the door frame at end of life and its disposal.

The following (Table 1) gives further information on the product transport to warehouse and customer site and installation.

| Scenario information | Unit |
|-----------------------------------|--|
| Vehicle used | 3.5t van Euro 6 (75%) , 18t Euro 6 lorry (25%) of journeys |
| Fuel type | Diesel |
| Distance to warehouse | 22.3km |
| Capacity utilisation to warehouse | 50% |
| Average distance to customer | 68.2km |
| Capacity utilisation to customer | 100% |
| Bulk density to warehouse | Varies per delivery - impact calculated as tkm |
| Installation energy | 0.6kWh |

Table 1: Transport to warehouse and customer's site and installation (A4 and A5)

System diagram

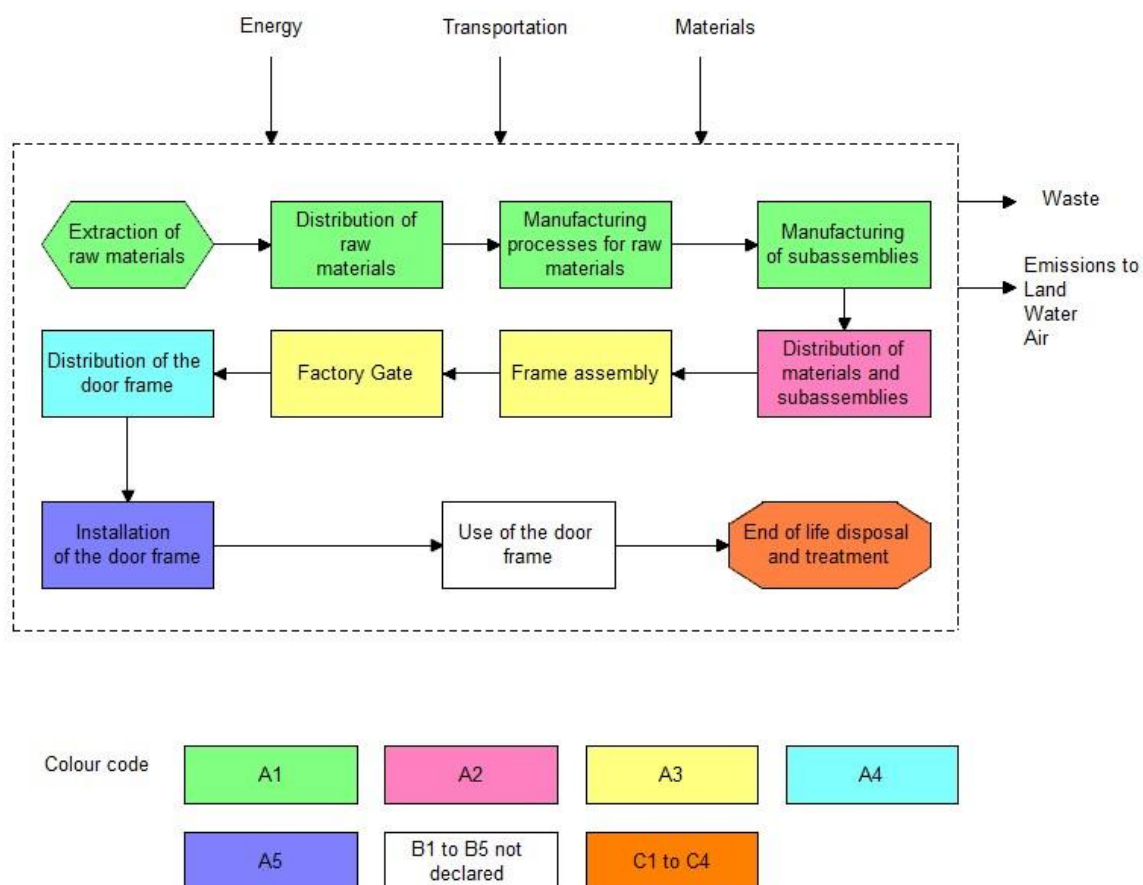


Figure 2: System boundary

End of life scenarios

For C1 it was assumed that power tools are used to remove the frame and that this required 10% of the installation energy, which equates to 0.06kWh.

For C2 it was assumed that a local contractor removes the frame, and it travels 50 km for end-of-life treatment and disposal.

For C3 it was assumed that metal parts are removed from the frame and the wood that is to be incinerated is chipped.

For end of life the materials in the door frame and the packaging, 44.4% is assumed incinerated and 55.6% landfilled in Module C4, reflecting UK practice. Approximately 66% of waste incineration in the UK includes energy recovery; the efficiency of this is assumed to be 60%, and the resulting energy output reported as “Exported Energy” (EE) in module C4.

In theory, the entire door frame could be processed through a fully automated materials recovery facility to remove all recyclable materials. Metals could then be sent directly to metal merchants and plastics bailed prior to going to specialist plastic pre-processors. The biomass materials could then be finely shredded and screened to remove any additional metals before being fed into a fully automated and closely monitored process, to generate super-heated steam which drives high-pressure turbines which, in turn, drive a generator to produce electricity.

The ash produced could be recycled into an aggregate called 6F, which is also composed of crushed concrete, brick and mortar.

Cut off rules

When building a life cycle inventory (LCI), it is typical to exclude items considered to have a negligible contribution to results. To do this in a robust manner there must be confidence that the exclusion is fair and reasonable. Therefore, cut-off criteria are defined, which allow items to be neglected if they meet the criteria. In this study exclusions could be made if they were expected to be within the below criteria:

- Mass: if a flow is anticipated to be less than 1% of the mass of the product it may be neglected;
- Energy: if a flow is anticipated to be less than 1% of the cumulative energy it may be neglected;
- Environmental significance: if a flow is anticipated to be less than 1% of the key impact categories it may be excluded.
- If an item meets one of the criteria but is expected to be significant to one of the other criteria, then it shall not be neglected. For example, if a chemical is small in mass but is expected to have a notable contribution to the environmental results then it may not be excluded.

No omissions were made based upon the above criteria.

Data quality indicators (DQIs)

To ensure data quality, checks were completed on key data parameters using data quality indicators (DQIs) which are applied to key data parameters to ensure fit for purpose. Key data parameters are assessed against a data quality matrix. The data quality matrix used in this study is shown (Table 3) and the scoring for the data is highlighted in grey.

| Score | Very good | Good | Fair | Poor | Very poor |
|----------------------------------|---|--|---|--|--|
| Reliability of the source | Verified data based on measurements | Verified data partly based on assumptions or unverified data based on measurements | Non-verified data partly based on assumptions | Qualified estimate (e.g., by industrial expert) | Non-qualified estimate |
| Representative | Representative data from sufficient sample of sites over an adequate period to even out normal fluctuations | Representative data from a smaller number of sites but for adequate periods | Representative data from an adequate number of sites but from shorter periods | Representative data but from a smaller number of sites and shorter periods or incomplete data from an adequate number of sites and periods | Representativeness unknown or incomplete data from a smaller number of sites and/or from shorter periods |
| Temporal correlation | Less than three years of difference to year of study | Less than six years of difference | Less than 10 years of difference | Less than 15 years of difference | Age of data unknown or more than 15 years of difference |
| Geographical correlation | Data from area under study | Average data from larger area in which the area under study is included | Data from area with similar production conditions | Data from area with slightly similar production conditions | Data from unknown area or area with very different production conditions |
| Technological correlation | Data from enterprises, processes and materials under study | Data from processes and materials under study but from different enterprises | Data from processes and materials under study but from different technology | Data on related processes or materials but same technology | Data on related processes or materials but different technology |

Table 2: Data quality indicators

Life cycle stages that have been omitted from the scope of the study include the following:

- Human energy inputs to processes;
- Infrastructure and capital goods;
- Transport of employees to and from their normal place of work.

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

| | Product stage | | | Construction process stage | | Use stage | | | | | | | End of life stage | | | | Resource recovery stage |
|----------------------|---------------------|-----------|---------------|----------------------------|---------------------------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|------------------------------------|
| | Raw material supply | Transport | Manufacturing | Transport | Construction installation | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal | Reuse-Recovery-Recycling-potential |
| Module | A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
| Modules declared | X | X | X | X | X | ND | ND | ND | ND | ND | ND | ND | X | X | X | X | X |
| Geography | GLO | GLO | GB | GB | GB | ND | ND | ND | ND | ND | ND | ND | GB | GB | GB | GB | GB |
| Specific data used | 14% | | | - | - | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - |
| Variation – products | 0 | | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - |
| Variation – sites | 0 | | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - |

X included in LCA - ND: module not declared - NR: module not relevant

Table 3: Modules declared

Product and packaging content information

| Product components | Weight, kg | Post-consumer material, weight-% | Biogenic material, weight-% and kg C |
|-----------------------------|-------------|----------------------------------|--------------------------------------|
| Oak wood | 20.2 | 0 | 100%, 10.109kg |
| Clear lacquer | 1.6 | 0 | 0 |
| Steel brad nails and screws | 0.1 | 0 | 0 |
| Stone wool | 0.4 | 0 | 0 |
| Intumescent filler | 1.0 | 0 | 0 |
| PP packer | 0.1 | 0 | 0 |
| Total | 23.5 | 0 | |
| Packaging materials | Weight, kg | Weight-% (versus the product) | Weight biogenic carbon, kg C |
| Paper and board | 0.43 | 1.830 | 100%, 0.216kg |
| Polypropylene | 0.01 | <0.01 | 0 |
| Polyethylene | 0.12 | 0.492 | 0 |
| Total | 0.56 | 2.322 | |

Table 4: Product and packaging content information

Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804

| Results per declared unit | | | | | | | | | |
|---------------------------|------------------------|----------|----------|-----------|----------|----------|----------|-----------|-----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 8.90E-01 | 2.49E-02 | 1.84E-01 | 2.49E-03 | 1.26E-01 | 1.98E-01 | 1.33E+00 | -3.81E+00 |
| GWP-biogenic | kg CO ₂ eq. | 3.62E-03 | 7.56E-02 | -2.66E+00 | 7.56E-03 | 1.22E-04 | 1.18E-02 | 2.93E+01 | 4.19E-02 |
| GWP-luluc | kg CO ₂ eq. | 5.25E-04 | 2.43E-04 | 2.15E-03 | 2.43E-05 | 5.98E-05 | 1.11E-03 | 4.60E-05 | -5.96E-03 |
| GWP-total | kg CO ₂ eq. | 7.52E-01 | 1.01E-01 | -2.47E+00 | 1.01E-02 | 1.27E-01 | 2.11E-01 | 3.06E+01 | -3.77E+00 |
| ODP | kg CFC 11 eq. | 1.84E-08 | 1.93E-09 | 2.00E-09 | 1.93E-10 | 2.85E-08 | 3.37E-08 | 1.02E-08 | -3.39E-07 |
| AP | mol H ⁺ eq. | 3.70E-03 | 4.23E-04 | 1.35E-03 | 4.23E-05 | 3.58E-04 | 1.13E-03 | 1.09E-03 | -8.47E-03 |
| EP-freshwater | kg P eq. | 1.07E-04 | 1.55E-05 | 6.79E-05 | 1.55E-06 | 9.55E-06 | 2.33E-05 | 4.60E-05 | -3.74E-04 |
| EP-marine | kg N eq. | 1.22E-03 | 9.09E-05 | 4.71E-04 | 9.09E-06 | 7.00E-05 | 3.97E-04 | 1.23E-03 | -2.01E-03 |
| EP-terrestrial | mol N eq. | 1.31E-02 | 1.40E-03 | 5.13E-03 | 1.40E-04 | 7.62E-04 | 4.29E-03 | 5.16E-03 | -2.08E-02 |
| POCP | kg NMVOC eq. | 5.30E-03 | 2.80E-04 | 1.84E-03 | 2.80E-05 | 2.92E-04 | 1.21E-03 | 1.42E-03 | -6.35E-03 |
| ADP-minerals & metals* | kg Sb eq. | 6.40E-06 | 1.65E-06 | 4.23E-07 | 1.65E-07 | 5.79E-07 | 7.15E-07 | 2.82E-07 | -8.34E-06 |
| ADP-fossil* | MJ | 1.22E+01 | 3.12E-01 | 2.25E+00 | 3.12E-02 | 1.90E+00 | 3.26E+00 | 1.08E+00 | -7.31E+01 |
| WDP* | m ³ | 5.77E-02 | 9.77E-03 | 2.52E-02 | 9.77E-04 | 6.29E-03 | 4.68E-03 | -4.07E-02 | -4.26E-01 |

Acronyms

GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals and metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Table 5: Results of mandatory environmental performance indicators

Additional mandatory and voluntary impact category indicators

| Results per declared unit | | | | | | | | | |
|------------------------------|------------------------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹ | kg CO ₂ eq. | 8.91E-01 | 2.51E-02 | 1.86E-01 | 2.51E-03 | 1.27E-01 | 1.99E-01 | 1.33E+00 | -3.81E+00 |
| Ionising radiation* | kBq U-235 eq | 3.31E-02 | 3.36E-03 | 9.66E-03 | 3.36E-04 | 1.01E-02 | 4.16E-02 | 3.48E-03 | -1.02E+00 |
| Particulate matter | disease inc. | 7.48E-08 | 4.41E-09 | 6.88E-08 | 4.41E-10 | 8.65E-09 | 1.96E-08 | 1.17E-08 | -5.69E-08 |
| Human toxicity, non-cancer** | CTUh | 1.57E-08 | 2.83E-09 | 4.56E-09 | 2.83E-10 | 1.50E-09 | 2.64E-09 | 1.59E-08 | -1.95E-08 |
| Human toxicity, cancer** | CTUh | 1.17E-09 | 6.59E-11 | 1.72E-10 | 6.59E-12 | 5.58E-11 | 1.48E-10 | 1.45E-09 | -9.73E-10 |
| Ecotoxicity, freshwater** | CTUe | 6.05E+00 | 3.29E-01 | 1.27E+00 | 3.29E-02 | 1.55E+00 | 2.74E+00 | 4.05E+00 | -3.56E+01 |
| Land use | Pt | 5.17E+00 | 6.12E+00 | 1.49E+02 | 6.12E-01 | 1.12E+00 | 2.56E+00 | 8.54E-01 | -1.95E+01 |

Table 6: Results of additional environmental performance indicators

Disclaimers

¹ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

*This impact category deals mainly with the eventual impact of low dosing ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure, nor due to radiative waste in underground facilities. Potential ionizing radiation from soil, from radon and from some materials are also not measured by this indicator.

** The results of these environmental impact indicators should be used with care as the uncertainties of these results are high or as there are limited experiences with the indicator.

Resource use indicators

| Results per declared unit | | | | | | | | | |
|---------------------------|--|-----------|----------|----------|----------|----------|----------|-----------|-----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | -1.05E+02 | 3.41E-02 | 3.19E+02 | 2.12E-01 | 3.21E-02 | 2.10E-01 | 2.94E-02 | -7.07E+00 |
| PERM | MJ | 1.74E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| PERT | MJ | 6.92E+01 | 3.41E-02 | 3.19E+02 | 2.12E-01 | 3.21E-02 | 2.10E-01 | 2.94E-02 | -7.07E+00 |
| PENRE | MJ | 7.72E+01 | 2.08E+00 | 2.40E+01 | 3.31E-02 | 2.01E+00 | 3.46E+00 | 1.17E+00 | -7.92E+01 |
| PENRM | MJ | 5.85E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| PENRT | MJ | 1.36E+02 | 2.08E+00 | 2.40E+01 | 3.31E-02 | 2.01E+00 | 3.46E+00 | 1.17E+00 | -7.92E+01 |
| SM | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| RSF | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| NRSF | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| FW | m ³ | 3.74E-01 | 2.83E-04 | 9.02E-03 | 9.02E-04 | 2.40E-04 | 3.72E-04 | -3.26E-04 | -1.71E-02 |
| Acronyms | PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water | | | | | | | | |

Table 7: Resource use indicators

Waste indicators

| Results per declared unit | | | | | | | | | |
|------------------------------|------|----------|----------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Non-hazardous waste disposed | kg | 8.23E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.27E+01 | 1.27E+01 |
| Radioactive waste disposed | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

Table 8: Waste indicators

Output flow indicators

| Results per declared unit | | | | | | | | | |
|-------------------------------|------|----------|----------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Material for recycling | kg | 5.29E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.29E+00 |
| Materials for energy recovery | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.07E+01 |
| Exported energy, electricity | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.15E+01 | 1.18E+01 |
| Exported energy, thermal | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.95E+01 | 3.08E+01 |

Table 9: Output flows indicators

Additional environmental information



Figure 4: Generic example of routing in hinge



Figure 5: Generic example to Install packer

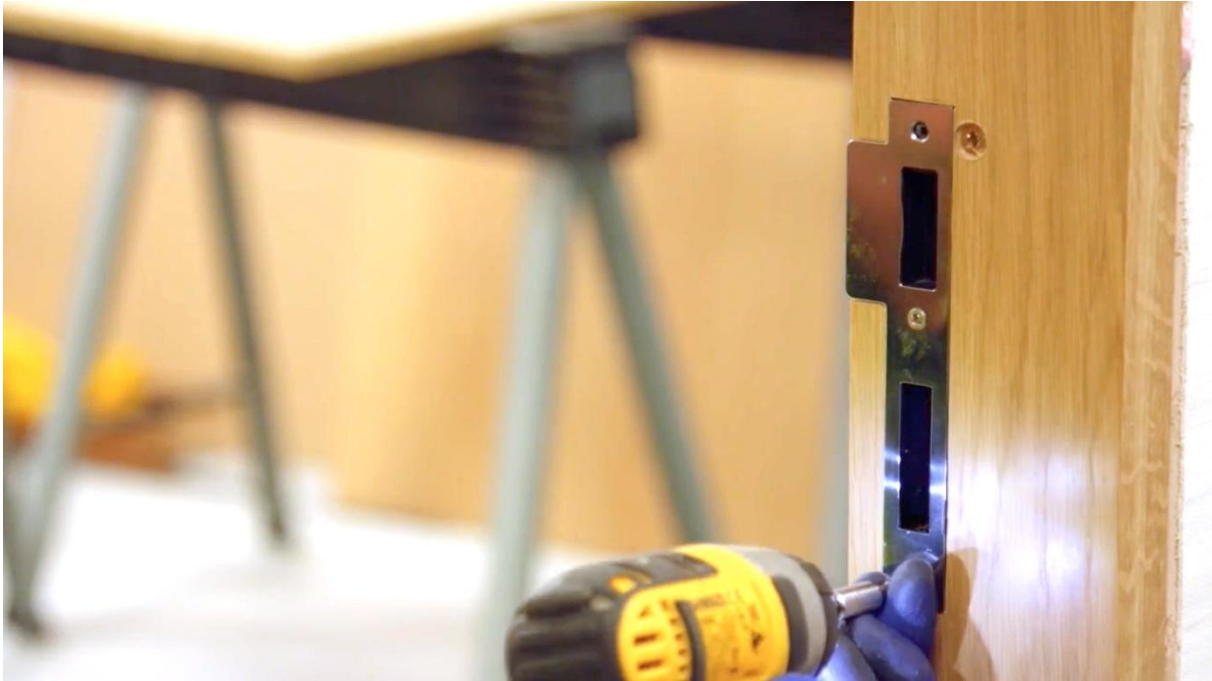


Figure 6: Generic example of fitting strike plate

References

General Programme Instructions of the International EPD® System. Version 4.0.
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EN 17213:2020. Windows and Door. Environmental product declaration. Product category rules for windows and pedestrian doorsets.

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IFCC Fire Certificate Number FRTD497.

FSC® Licence Code FSC-C104313.

Glossary

FIS - The Finishes and Interiors Sector.

FORS – Fleet Operators Recognition Scheme.

GAI - The Guild of Architectural Ironmongers (GAI) is the voice of the architectural ironmongery sector.

SBD - Secured by Design, is the official police security initiative that is owned by the UK Police Service with the specific aim to reduce crime and help people live more safely.

UKAS - United Kingdom Accreditation Service is the sole national accreditation body recognised by the British government to assess the competence of organisations that provide certification, testing, inspection, and calibration services.

